

10-50-63

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Re:

Mei Wen, Roman Mostovoy, Glen Mori and Harald Herchen

Title:

METAL DEPOSITION PROCESS WITH PRE-CLEANING BEFORE ELECTROCHEMICAL

DEPOSITION

Serial No.:

Inventor(s):

10/676,208

Filed:

October 1, 2003

Transmitted herewith is:

X Information Disclosure Statement

X PTO Form 1449 with thirty-five cited references

X Return Postcards

FEE CALCULATION								
Fee Items	Claims Filed	Included With Basic Fee	Extra Claims	Fee Rate	Total			
Total Claims	N/A	- 20 =	-0-	X \$18.00	\$0.00			
Independent Claims	N/A	- 3 =	-0-	X \$84.00	\$0.00			
Basic Filing Fee \$740.00								
TOTAL FEES								

The Commissioner is hereby authorized to charge \$0.00 to Deposit Account No. 04-1696.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. <u>04-1696</u>. A duplicate copy of this transmittal is enclosed.

XX Please address all future correspondence to:

PATENT COUNSEL APPLIED MATERIALS, INC. Legal Affairs Department P.O.BOX 450A Santa Clara, CA. 95052

I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Express Mail Receipt No. <u>EL975549325US</u>

Date of Deposit: October 29, 2003

Signature

Respectfully submitted,

Brian M. Dugan

Registration No. 41,720

(914) 332-9081

OCT 2 9 2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Mei Wen, Roman Mostovoy, Glen Mori and Harald

Herchen

Serial No. : 10/676,208

Filed : October 1, 2003

For : METAL DEPOSITION PROCESS WITH PRE-CLEANING

BEFORE ELECTROCHEMICAL DEPOSITION

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

In accordance with 37 C.F.R. §§ 1.56 and 1.97, applicants wish to call the attention of the Examiner to the following references:

- U.S. Patent No. 5,030,319, Nishino et al.
- U.S. Patent No. 5,503,878, Suzuki et al.
- U.S. Patent No. 5,814,157, Mizuniwa et al.
- U.S. Patent No. 5,968,279, MacLeish et al.
- U.S. Patent No. 5,992,729, Koopman et al.
- U.S. Patent No. 5,994,240, Thakur
- U.S. Patent No. 5,996,594, Roy et al.
- U.S. Patent No. 6,033,584, Ngo et al.

- U.S. Patent No. 6,040,021, Miyamoto
- U.S. Patent No. 6,107,192, Subrahmanyan et al.
- U.S. Patent No. 6,117,570, Chen et al.
- U.S. Patent No. 6,132,564, Licata
- U.S. Patent No. 6,277,749 B1, Funabashi
- U.S. Patent No. 6,284,649 B1, Miyamoto
- U.S. Patent No. 6,319,616 B1, Lopatin et al.
- U.S. Patent No. 6,319,728 B1, Bhan et al.
- U.S. Patent No. 6,346,489 B1, Cohen et al.
- U.S. Patent No. 6,395,642 B1, Liu et al.
- U.S. Patent No. 6,420,261 B2, Kudo
- U.S. Patent No. 6,582,578, B1 Dordi et al.
- U.S. Patent No. 6,613,663 B2, Furuya
- U.S. Patent No. 5,932,022, Linn et al.

Foreign Art Reference No. JP04131395 A (Japan)

Foreign Art Reference No. JP2000208444 A (Japan)

Foreign Art Reference No. WO 97/15173 (WIPO)

Foreign Art Reference No. WO 02/45155 A2 (WIPO)

Foreign Art Reference No. WO 02/068727 A2 (WIPO)

Foreign Art Reference No. WO 03/005437 A2 (WIPO)

- U.S. Patent Application No. US 2002/0088713 A1,
- Pub. Date: July 11, 2002
- U.S. Patent Application No. US 2002/0001860 A1,

Pub. Date: January 3, 2002

U.S. Patent Application No. US 2002/0011415 A1,

Pub. Date: January 31, 2002

U.S. Patent Application No. US 2002/0076929 A1,

Pub. Date: June 20, 2002

U.S. Patent Application No. US 2002/0134684 A1,

Pub. Date: September 26, 2002

U.S. Patent Application No. US 2003/0176064 A1,

Pub. Date: September 18, 2003

Lu, et al., Understanding and Eliminating Defects in Electroplated Cu Films, 2001, pgs. 280-282

These references are also listed on the accompanying Information Disclosure Statement (Form PTO-1449) and copies are enclosed.

Consideration of the foregoing in relation to this patent application is respectfully requested.

Respectfully Submitted,

Brian M. Dugan, Esq. Registration No. 41,720

Dugan & Dugan, PC

Attorneys for Applicants

(914)332-9081

Dated: October 29, 2003

Tarrytown, New York

U.S. Department of Commerce, Patent and Trademark Office				Docket No.: 7135/CMP/EC	Docket No.: 7135/CMP/ECP/RKK		Serial No.: 10/676,208			
(Use several sheets if necessary)					Applicant(s): Mei Wen et al.					
OCT 2 9 2000 Examiner	PERCE 2				Filing Date: 10/01/03		Grou	Group:		
ADEN A	tent Doc	cuments								
*Examiner Initial		Document Number	Document Issue Number Date Name Class		Subclass		Filing Dat Appropri			
	AA	5,030,319	07/09/91	Nishino et al.						
	AB	5,503,878	04/02/96	Suzuki et al.						
	AC	5,814,157	09/29/98	Mizuniwa et al.						
	AD	5,968,279	10/19/99	MacLeish et al.						
	AE	5,992,729	11/30/99	Koopman et al.						
	AF	5,994,240	11/30/99	Thakur						
	AG	5,996,594	12/07/99	Roy et al.						
	AH	6,033,584	03/07/00	Ngo et al.						
	AI	6,040,021	03/21/00	Miyamoto						
	AJ	6,107,192	08/22/00	Subrahmanyan et al.						
	AK	6,117,570	09/12/00	Chen et al.						
Foreign	Patent	Documents						Transla	tic	
		Document Number	Date	Country	Class	Subo	class	Yes		
	AL	JP04131395 A	05/06/92	Japan				X abstract only		
	AM	JP2000208444 A	07/28/00	Japan				X abstract only		
	AN	WO 97/15173	04/24/97	WIPO						
	AO	WO 02/45155 A2	06/06/02	WIPO						
	AP	WO 02/068727 A2	09/06/02	WIPO						
OTHE	R ART	(Including Author,	Title, Date,	Pertinent Pages, Etc.)						
	AR	U.S. Patent Appli	cation No. U	JS 2002/0088713 A1, Pub.	Date: July 11, 2002					
	AS	U.S. Patent Appli	cation No. U	JS 2002/0001860 A1, Pub.	Date: January 3, 2002	2				
	AT	U.S. Patent Appli	cation No. U	JS 2002/0011415 A1, Pub.	Date: January 31, 200)2				

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

Date Considered

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Examiner

Express Mail Label No.: EL975549325US

U.S. Department of Commerce, Patent and Trademark Office LIST F RELEVANT ART CITED BY APPLICANT (Use several sheets if necessary)					Docket No.: 7135/CMP/ECP/RKK		Serial No.: 10/676,208			
					Applicants: Mei Wen, et al					
					Filing Date: Grou		up:			
. U.S. Pa	tent Doo	cuments								
*Examiner Initial		Document Number	Issue Date	Name	Class	Subc			Date If	
	AA	6,132,564	10/17/00	Licata						
	AB	6,277,749 B1	08/21/01	Funabashi						
	AC	6,284,649 B1	09/04/01	Miyamoto						
	AD	6,319,616 B1	11/20/01	Lopatin et al.						
	AE	6,319,728 B1	11/20/01	Bhan et al.						
	AF	6,346,489 B1	02/12/02	Cohen et al.						
	AG	6,395,642 B1	05/28/02	Liu et al.						
	AH	6,420,261 B2	07/16/02	Kudo					-	
	AI	6,582,578 B1	06/24/03	Dordi et al.						
	AJ	6,613,663 B2	09/02/03	Furuya						
	AK	5,932,022	08/03/99	Linn et al.						
Foreign				Transla	ition					
		Document Number	Date	Country	Class	Subc	lass	Yes	No	
	AL	WO 03/005437 A2	01/16/03	WIPO						
	AM									
	AN									
	AO									
	AP									
ОТНЕ	R ART (Including Author,	Title, Date,	Pertinent Pages, Etc.)						
	AR	U.S. Patent Appli	cation No. U	JS 2002/0076929 A1, Pub. I	Date: June 20, 2002					
<u> </u>	AS	U.S. Patent Application No. US 2002/0134684 A1, Pub. Date: September 26, 2002								
	AT	AT U.S. Patent Application No. US 2003/0176064 A1, Pub. Date: September 18, 2003								
	AU	Lu, et al., Unders	tanding and	Eliminating Defects in Elect	roplated Cu Films, 20	001, pgs. 28	80-282			

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